Safety Data Sheet

Copyright,2026, 3M Company.
All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

Document Group:	10-2527-9	**Version Number:**	31.02
Issue Date:	09/29/26	**Supersedes Date:**	09/03/25

SECTION 1: Identification

1.1. Product identifier
3M™ Scotch-Weld™ Structural Adhesive Film AF 163-3

1.2. Recommended use and restrictions on use

Recommended use
Structural Adhesive Film, Industrial use

1.3. Supplier's details

MANUFACTURER:	3M
DIVISION:	Automotive and Aerospace Solutions Division
ADDRESS:	3M Center, St. Paul, MN 55144-1000, USA
Telephone:	1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

2.1. Hazard classification
Germ Cell Mutagenicity: Category 2.
Reproductive Toxicity: Category 2.
Specific Target Organ Toxicity (repeated exposure): Category 2.

2.2. Label elements
Signal word
Warning

Symbols
Health Hazard |

Pictograms



Hazard Statements

Suspected of causing genetic defects.
Suspected of damaging fertility or the unborn child.

May cause damage to organs through prolonged or repeated exposure: gastrointestinal tract.

Precautionary statements

Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe vapors.
Wear protective gloves.

Response:
IF exposed or concerned: Get medical attention.
Get medical attention if you feel unwell.

Storage:
Store locked up.

Disposal:
Dispose of contents and container in accordance with applicable local, regional, national, and international regulations.

69% of the mixture consists of ingredients of unknown acute oral toxicity.
69% of the mixture consists of ingredients of unknown acute dermal toxicity.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
EPOXY RESIN REACTION PRODUCT	Trade Secret*	55 - 75
4,4'-isopropylidenediphenol-epichlorohydrin polymer	25068-38-6	10 - 30 Trade Secret *
Dicyandiamide	461-58-5	< 5
Epoxy Resin	5026-74-4	1 - 5 Trade Secret *
1,1'-(4-Methyl-m-Phenylene)bis(3,3-Dimethylurea)	17526-94-2	< 2
Chromium Oxide (CR2O3)	1308-38-9	< 0.5

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:
Wash with soap and water. If you feel unwell, get medical attention.

Eye Contact:
If exposed, flush eyes with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms develop, get medical attention.

If Swallowed:
Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Target organ effects following prolonged or repeated exposure. See Section 11 for additional details.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

Hazardous Decomposition or By-Products

Substance	Condition
Aldehydes	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Chloride	During Combustion
Hydrogen Cyanide	During Combustion
Ammonia	During Combustion
Oxides of Nitrogen	During Combustion

5.3. Special protective actions for fire-fighters
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

For industrial/occupational use only. Not for consumer sale or use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Use personal protective equipment (gloves, respirators, etc.) as required.

7.2. Conditions for safe storage including any incompatibilities
Store away from heat. Store away from amines.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
CHROMIUM METAL AND INSOLUBLE SALTS (AS CR)	1308-38-9	OSHA	TWA(as Cr):1 mg/m3	
CHROMIUM(III) COMPOUNDS (AS CR)	1308-38-9	OSHA	TWA(as Cr):0.5 mg/m3	
Trivalent chromium insoluble inorganic compounds, as Cr (III), inhalable fraction	1308-38-9	ACGIH	TWA(as Cr(III), inhalable fraction):0.003 mg/m3	A4: Not class. as human carcin

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
OSHA : United States Department of Labor - Occupational Safety and Health Administration
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Provide ventilated enclosure for curing. Curing enclosures must be exhausted to outdoors or to a suitable emission control device.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Safety Glasses with side shields

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

Gloves made from the following material(s) are recommended: Polymer laminate

Respiratory protection
None required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Specific Physical Form:	Film
Color	Green
Odor	Odorless
Odor threshold	*No Data Available*
pH	*Not Applicable*
Melting point	*No Data Available*
Boiling Point	*Not Applicable*
Flash Point	No flash point
Evaporation rate	*Not Applicable*
Flammability	Not Applicable
Flammable Limits(LEL)	*Not Applicable*
Flammable Limits(UEL)	*Not Applicable*
Vapor Pressure	*Not Applicable*
Relative Vapor Density	*Not Applicable*
Density	*No Data Available*
Relative Density	*No Data Available*
Solubility in Water	Nil
Solubility- non-water	*No Data Available*
Partition coefficient: n-octanol/ water	*Not Applicable*
Autoignition temperature	*Not Applicable*
Decomposition temperature	*No Data Available*
Kinematic Viscosity	*Not Applicable*
Molecular weight	*No Data Available*
Volatile Organic Compounds	*Not Applicable*
Percent volatile	Nil
VOC Less H2O & Exempt Solvents	*Not Applicable*
Particle Characteristics	*Not Applicable*

SECTION 10: Stability and reactivity

10.1. Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability
Stable.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
Heat

10.5. Incompatible materials
Amines

10.6. Hazardous decomposition products

Substance	Condition

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:
No known health effects.

Skin Contact:
Contact with the skin during product use is not expected to result in significant irritation.

Eye Contact:
Contact with the eyes during product use is not expected to result in significant irritation.

Ingestion:
Physical Blockage: Signs/symptoms may include cramping, abdominal pain, and constipation. May cause additional health effects (see below).

Additional Health Effects:

Prolonged or repeated exposure may cause target organ effects:
Gastrointestinal Effects: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Reproductive/Developmental Toxicity:
Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Genotoxicity:
Genotoxicity and Mutagenicity: May interact with genetic material and possibly alter gene expression.

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Dermal	Rat	LD50 > 1,600 mg/kg
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Ingestion	Rat	LD50 > 1,000 mg/kg
Dicyandiamide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Dicyandiamide	Ingestion	Rat	LD50 > 30,000 mg/kg
Epoxy Resin	Dermal	Rat	LD50 > 4,000 mg/kg
Epoxy Resin	Ingestion	Rat	LD50 1,037 mg/kg

1,1'-(4-Methyl-m-Phenylene)bis(3,3-Dimethylurea)	Dermal	Rat	LD50 > 2,000 mg/kg
1,1'-(4-Methyl-m-Phenylene)bis(3,3-Dimethylurea)	Ingestion	Rat	LD50 > 2,000 mg/kg
Chromium Oxide (CR2O3)	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Chromium Oxide (CR2O3)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.41 mg/l
Chromium Oxide (CR2O3)	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Overall product	Multiple animal species	No significant irritation
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Rabbit	Mild irritant
Dicyandiamide	Human and animal	Minimal irritation
Epoxy Resin	Rabbit	No significant irritation
1,1'-(4-Methyl-m-Phenylene)bis(3,3-Dimethylurea)	Rabbit	No significant irritation
Chromium Oxide (CR2O3)	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Rabbit	Moderate irritant
Dicyandiamide	Professional judgement	Mild irritant
Epoxy Resin	Rabbit	Mild irritant
1,1'-(4-Methyl-m-Phenylene)bis(3,3-Dimethylurea)	Rabbit	No significant irritation
Chromium Oxide (CR2O3)	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Overall product	Guinea pig	Not classified
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Human and animal	Sensitizing
Dicyandiamide	Guinea pig	Not classified
Epoxy Resin	Mouse	Sensitizing
Chromium Oxide (CR2O3)	similar compounds	Not classified

Respiratory Sensitization

Name	Species	Value
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
4,4'-isopropylidenediphenol-epichlorohydrin polymer	In vivo	Not mutagenic
4,4'-isopropylidenediphenol-epichlorohydrin polymer	In Vitro	Some positive data exist, but the data are not sufficient for classification

Dicyandiamide	In Vitro	Not mutagenic
Epoxy Resin	In Vitro	Some positive data exist, but the data are not sufficient for classification
Epoxy Resin	In vivo	Mutagenic
Chromium Oxide (CR2O3)	In vivo	Not mutagenic
Chromium Oxide (CR2O3)	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Dicyandiamide	Ingestion	Rat	Not carcinogenic
Chromium Oxide (CR2O3)	Ingestion	Rat	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Dermal	Not classified for development	Rabbit	NOAEL 300 mg/kg/day	during organogenesis
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	2 generation
Dicyandiamide	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
Dicyandiamide	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	44 days
Dicyandiamide	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
Epoxy Resin	Ingestion	Not classified for male reproduction	Rat	NOAEL 25 mg/kg/day	2 generation
Epoxy Resin	Ingestion	Not classified for development	Rat	NOAEL 15 mg/kg/day	during gestation
Epoxy Resin	Ingestion	Toxic to female reproduction	Rat	NOAEL 50 mg/kg/day	28 days
Chromium Oxide (CR2O3)	Ingestion	Not classified for female reproduction	Rat	NOAEL 2,000 mg/kg/day	90 days
Chromium Oxide (CR2O3)	Ingestion	Not classified for male reproduction	Rat	NOAEL 2,000 mg/kg/day	90 days
Chromium Oxide (CR2O3)	Ingestion	Not classified for development	Rat	NOAEL 2,000 mg/kg/day	90 days

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Chromium Oxide (CR2O3)	Inhalation	respiratory system	Not classified	Rat	NOAEL 40 mg	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration

4,4'-isopropylidenediphenol-epichlorohydrin polymer	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Dermal	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Ingestion	auditory system	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Ingestion	heart	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Ingestion	endocrine system	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Ingestion	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Ingestion	eyes	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
4,4'-isopropylidenediphenol-epichlorohydrin polymer	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
Dicyandiamide	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 6,822 mg/kg/day	13 weeks
Epoxy Resin	Ingestion	gastrointestinal tract	May cause damage to organs though prolonged or repeated exposure	Rat	NOAEL 15 mg/kg/day	90 days
Epoxy Resin	Ingestion	endocrine system	Not classified	Rat	NOAEL 450 mg/kg/day	28 days
Epoxy Resin	Ingestion	bone, teeth, nails, and/or hair	Not classified	Rat	NOAEL 450 mg/kg/day	28 days
Epoxy Resin	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 450 mg/kg/day	28 days
Epoxy Resin	Ingestion	liver	Not classified	Rat	NOAEL 450 mg/kg/day	28 days
Epoxy Resin	Ingestion	immune system	Not classified	Rat	NOAEL 450 mg/kg/day	28 days
Epoxy Resin	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 450 mg/kg/day	28 days
Epoxy Resin	Ingestion	nervous system	Not classified	Rat	NOAEL 450 mg/kg/day	28 days
Epoxy Resin	Ingestion	eyes	Not classified	Rat	NOAEL 15 mg/kg/day	90 days
Chromium Oxide (CR2O3)	Inhalation	immune system	Not classified	Rat	NOAEL 44 mg/m3	90 days
Chromium Oxide (CR2O3)	Inhalation	respiratory system	Not classified	Rat	NOAEL 44 mg/m3	90 days
Chromium Oxide (CR2O3)	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 44 mg/m3	90 days
Chromium Oxide (CR2O3)	Inhalation	liver	Not classified	Rat	NOAEL 44 mg/m3	90 days
Chromium Oxide (CR2O3)	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 44 mg/m3	90 days

Aspiration Hazard
For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of waste product in a permitted industrial waste facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

EPA Hazardous Waste Number (RCRA): D007 (Chromium)

SECTION 14: Transport Information

For Transport Information, please visit http://3M.com/Transportinfo or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations
Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:

Physical Hazards
Not Applicable.

Health Hazards
Germ cell mutagenicity
Reproductive toxicity
Specific target organ toxicity (single or repeated exposure)

15.2. State Regulations
Contact 3M for more information.

15.3. Chemical Inventories
The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification
Health: 0 **Flammability:** 1 **Instability:** 0 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Document Group:	10-2527-9	**Version Number:**	31.02
Issue Date:	09/29/26	**Supersedes Date:**	09/03/25

DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from 3M.

3M USA SDSs are available at www.3M.com